The Afghanistan Engineering Support Program assembled this deliverable. It is an approved, official USAID document. Budget information contained herein is for illustrative purposes. All policy, personal, financial, and procurement sensitive information has been removed. Additional information on the report can be obtained from Firouz Rooyani, Tetra Tech Sr. VP International Operations, (703) 387-2151.

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FROM THE AMERICAN PEOPLE

ENGINEERING SUPPORT PROGRAM

YEAR 2 WORK PLAN

Draft September 1, 2010
Final October 11, 2010
This publication was produced for review by the United States Agency for International Development. It was prepared by Tetra Tech, Inc.

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TETRA TECH

October 11, 2010

[redacted]
USAID – Office of Infrastructure, Engineering and Energy (OIEE-AESP)
Café Compound
U.S. Embassy
Great Masood Road, Kabul, Afghanistan

Re: Task Order 01–EDH-I-00-08-00027-00
Year 2 Work Plan

Dear Sirs:

Tetra Tech is pleased to submit the Final Year 2 Work Plan for the above referenced task order under the Afghanistan Engineering Support Program.

Please return your revisions or comments to Tetra Tech by September 8, 2010. If you should have any questions, contact me at [redacted]

Sincerely,

[redacted]
Chief of Party (OIEE-AESP)
Tetra Tech, Inc.

Cc: [redacted]

One Grant Street
Framingham, MA 01701
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AFGHANISTAN ENGINEERING SUPPORT PROGRAM

YEAR 2 WORK PLAN

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Acronyms and Abbreviations

A-E	Architecture and Engineering
AESP	Afghanistan Engineering Support Program
A/COTR	Alternate Contracting Officer's Technical Representative
ATVI	Afghanistan Technical & Vocational Institute
B&M	Branding & Marking Plan
BMP	Best Management Practice
CMU	Concrete Masonry Unit
CO	Contracting Officer
COP	Chief of Party
COTR	Contracting Officer's Technical Representative
CV	Curriculum Vitea
DCOP	Deputy Chief of Party
GW	GardaWorld
IP	Implementing Partner
IQC	Indefinite Quantity Contract
IT	Information Technology
ISAF	International Security Assistance Force
JOFOC	Justification for Other than Full and Open Competition
LN	Local National
LOE	Level of Effort
LTTA	Long Term Technical Assistance
MIS	Management Information System
MoF	Ministry of Finance
MoFA	Ministry of Foreign Affairs
MEW	Ministry of Energy and Water
MOU	Memorandum of Understanding
NGO	Non-Governmental Organization
OIEE	Office Infrastructure, Engineering and Energy
O&M	Operation and Maintenance
OSSD	Office of Social Sector Development
PMP	Performance Monitoring Plan
PRT	Provincial Reconstruction Team
QA	Quality Assurance
RMSI	Remote Medical Solutions International
R&R	Rest & Recuperation
RRB	Regional Rest Break
SMART	SMART Engineering Team
SOW	Statement of Work
STTA	Short Term Technical Assistance
TBD	To Be Determined
TO	Task Order
USACC	US Afghan Consulting and Construction
USAID	United States Agency for International Development
USG	United States Government
WO	Work Order
WO-A	Work Order-Administrative
WO-LT	Work Order-Long Term

1.0 Introduction

1.1 Background

The purpose of the Afghanistan Engineering Support Program (AESP) is to provide quick response resident professional architect and engineering (A-E) technical services in the sectors of transportation, vertical structures, energy, water and sanitation, and water resources to United States Agency for International Development (USAID)/Afghanistan. The activities assigned under this Task Order (TO) will support USAID's objective of fostering sustainable development in developing countries. Tetra Tech is committed to developing local national engineers by mentoring and training them through work orders performed under this program.

This Year 2 Work Plan updates the Final Work Plan submitted on March 14, 2010 and provides an updated overview of program management structure, schedule, work flow, and overall program approach. It also outlines work to be accomplished during the second year of the program, with an overview of short-term level of effort (LOE), work activities, long- and medium-term postings with arrival dates. For information on work completed to date, please consult the quarterly reports submitted to USAID on February 23, 2010; May 6, 2010 and July 21, 2010.

1.2 Program Goals

The overall program goals remain unchanged since the Final Work Plan submitted on March 14, 2010. Tetra Tech is committed to capacity building and anticipates increasing the local national engineering staff by up to 43 engineers (eight LN engineers to support vertical structures, 15 for the SPR Program and the remaining staff will be hired upon work order requirements from USAID). Activities performed by Tetra Tech under the AESP complement and reinforce the activities and A-E expertise of USAID's Office of Infrastructure, Engineering and Energy (OIEE) staff in the following sectors.

- Vertical Structures (structural assessment and design of schools, clinics, government centers and other buildings, including temporary space). These services include, but are not limited to, the structural assessment, planning, design and construction of education, health, judicial, general government facilities, agriculture, industrial parks and other structures as required. These services also include training eight local nationals in vertical structures disciplines.

- Energy (generation, transmission, distribution and regulation). These services include, but are not limited to, the assessment, planning, design and construction of multiple power networks from generation to distribution, and regulation, small scale systems, renewable energy systems and hybrid systems. These services also include training local nationals in energy.

- Water and Sanitation (urban and rural water supply systems, sanitation facilities, hygiene behavior change, and irrigation). These services include, but are not limited to the assessment, planning, design and construction for water treatment, water conveyance, wastewater collection, and wastewater treatment systems. These services also include training local nationals in water and sanitation.

- Transportation (roads, rail and airports). These services include, but are not limited to, the assessment, planning, design and construction of transportation systems, primary and secondary roads, and bridges. The primary focus will be roads, however; additional activities may include airports and rail. These services also include training 17 local nationals in transportation (15 for road construction QA monitoring, an accountant and an administrative assistant).
- Water Resources/Dams. These services include, but are not limited to, the assessment, planning, design and construction for water resource management, urban and rural water systems, drainage basins and irrigation systems, dams and storage reservoirs, flood control programs, domestic and industrial water supply, and the exploration and development of groundwater resources. These services also include training local nationals in water resources.
- Quality Assurance (QA). This activity includes the development of a Quality Assurance Plan and the implementation of those plans during the design and construction of the above described features. These services also include training local nationals in QA.

Under the AESP, Tetra Tech provides A-E and technical support so that the OIEE can continue to provide the Mission with needed engineering expertise in order to construct safe, long-life and energy efficient transportation, vertical structures, energy and water and sanitation infrastructure, dams, and other related facilities in Afghanistan. Tetra Tech's focus will continue to be providing quality engineering service while using LN engineering staff to perform design services, accomplish field investigations and aid in program operations.

2.0 Program Approach

2.1 Introduction

Tetra Tech's Year 2 program approach remains unchanged since the Final Work Plan submitted on March 14, 2010. Under the AESP, Tetra Tech provides engineering planning, design, and other technical support from a dedicated office in Kabul. Providing engineering technical assistance and collaboration not only ensures competent engineering practice; it also increases the technical expertise of project engineering staff and upgrades the quality of design and construction practices among participating engineering and construction companies in Afghanistan.

The work produced is evaluated within the general performance standards: quality of work/compliance with specifications, cost control/effectiveness, timeliness, and client satisfaction.

The engineers are managed by an expatriate senior engineering lead for each sector and receive additional engineering support through short-term engineering assistance. Tetra Tech anticipates hiring up to 43 Afghan engineers (depending on the work order requirements from USAID in the coming year) who will be mentored by our senior expatriate staff to provide capacity building for continued advancement of the Afghanistan engineering community. Additional program support is provided as summarized below.

- Engineering technical support from home office engineers provided, as needed, through e-mail correspondence, videoconference, technical consultations, or sharing of designs and issues through Web site access, review, and comments;
- Engineering design guidance and review provided by USAID OIEE; and
- Collaboration and active working relationships with USAID, government agencies, non-governmental organizations (NGOs), and other stakeholders.
- Hiring local national staff in engineering disciplines to assist in providing engineered infrastructure that meets local needs.

2.2 Planning Activities

The Tetra Tech team provides high quality engineering and technical assistance and guidance in the planning of new OIEE activities requested, including conceptualization, analysis and approval documentation such as:

- Preparation or review of studies, assessments, designs, and specifications for systems and equipment for facilities, statements of work (SOW) for associated services, cost estimates, requests for proposals, and invitations for bids;
- Preparation or review of training programs, especially in the areas of plant or equipment start-up, operation, maintenance, testing, acceptance, and logistics procedures and efficiency;
- Preparation, review, or assistance in development of statistical data on existing supply/demand and supply/demand forecasts. Development and interpretation for system usage data, forecasting future system requirements and estimating costs;

- Preparation or review of pre-feasibility and feasibility studies; cost estimates; technical, financial and economic surveys; social soundness, management and financial analyses; organizational plans; and recommendations concerning technical and economic aspects of development;
- Ensuring that environmental and sustainability issues are considered in program design and in keeping with Agency practices in accordance with USAID's environmental procedures or "Regulation 216" (Title 22, Code of Federal Regulations, Part 216); and
- Analysis of risks associated with natural disasters and the design of structures and services to appropriate building standards in order to better withstand such disasters; and analysis, evaluation and preparation of plans and procedures for maintenance and operations.
- Preparation of Quality Assurance Plans for designated construction activities using our team of local engineers and expatriate staff.

2.3 Design Activities

The Tetra Tech team manages, in a timely manner, the preparation of detailed engineering studies, assessments, designs, plans, specifications and cost estimates for assigned OIEE programs and activities, and ensures that they comply with appropriate national and international standards and reflect Agency best practices including:

- Design of complex activities in support of OIEE;
- Provision of limited scope or short-term services involving preparation of preliminary or final drawings, sketches, plans, aerial photographs and other topographical or geological data used to plan and review projects; and
- Analysis and evaluation of designs, drawings, specifications, cost estimates, schedules and lists of equipment requirements to inform and make recommendations to USAID regarding assistance commitments for activities.
- Preparation of specific Quality Assurance Plans.

2.4 Technical Support and Consulting Services to USAID

The Tetra Tech team provides project management advisory services for contracts and agreements with other Implementing Partners in the sectors overseen. Tetra Tech provides engineering management support to USAID under this contract and, therefore, provides engineering guidance to contractors and grantees in accordance with the terms of the contract including:

- Provide technical advice and support to personnel working on USAID programs that are related to infrastructure, such as provincial reconstruction team (PRT) personnel;
- Provide technical advice to industrial and managerial personnel regarding design, and/or program modifications and structural repairs;
- Provide expert technical oversight to implementer staff, keeping OIEE, PRT, Office of Social Sector Development (OSSD) and the contracting officer (CO) informed of work progress;

- Provide technical support for procurement processes, including evaluation of others and contract modifications;
- Prepare or review reports and recommendations regarding the general arrangements, viability and cost effectiveness of capital plans and processes as to validity and economy of work plans, and for changes, additions, or revisions in project activities;
- Monitor adequacy and acceptability of delivered goods and services under approved activities including equipment installation, training activities through field inspections, reviewing contractor reports, and meeting project personnel and implementer representatives;
- Develop solutions to complex project and program A-E issues unresolved by implementers;
- Provide construction inspection and surveillance services in accordance with the approved Quality Assurance Plans;
- Provide value engineering services;
- Provide technical assistance to the COTR in responding to proposed changes in OIEE's Contracts, SOWs, the validity of claims, and the reasonableness of contract time extensions;
- Provide appropriate technical assistance to the COTR in issuance and negotiations of change orders in accordance with procedures;
- Perform administrative responsibilities including, but not limited to, activities such as drafting project implementation letters, preparing action memorandum and reports, estimating expenditures, reviewing payment vouchers, responding to audits, assessing claims, writing Justification for Other than Full and Open Competition (JOFOC) and performing other related activities; and
- Provide quality assurance services, as required.

2.5 Quality Assurance Services

Tetra Tech monitors the construction projects implemented by other contractors and grantees through site visits by qualified engineers. Monitoring includes ocular visual inspection of work at the site as well as inspection of the implementing partners' (IPs') testing facilities, procedures and results. The engineering monitors check the IPs' work to ensure compliance with the approved Quality Control (QC) Plan, Quality Assurance (QA) Plan, and pre-determined technical standards and construction schedules.

QA tasks include but are not limited to the following:

- Regular Inspections: The Contractor conducts on-site inspections of projects. During the inspections, the Contractor:
    - Verifies and ensures that the quality of materials used meet contract specifications;
    - Verifies the correctness of the quantities used;

- Monitors sampling and testing procedures, including testing frequency, and reports failed tests to concerned parties for corrective action;
- Verifies the quality of construction/installation work and ensure conformity to contract design plans, specifications and requirements;
- Monitors progress of work against the approved construction schedule, report deviations and their causes, and recommend corrective actions;
- Reports on the safety conditions on project sites, contractor's facilities, and identify violations of safety regulations;
- Monitors safety violations and follow-up on corrective actions; and
- Verifies security incident reports, weather problems and any other events that could affect construction schedule in a timely manner.

- Substantial Completion[1] Inspection: Upon substantial completion of construction/rehabilitation activities, the Contractor with representatives from USAID and the relevant Ministry shall inspect the project and develop a punch list of items requiring remedial work before final inspection and acceptance.
- Punch List Verification Inspection. When the IP informs the Contractor that the punch list activities are completed, the Contractor, together with representatives from USAID and the relevant Ministry will conduct an Inspection and Verification of Punch List activities. During the inspection, parties will either determine if the Punch List items have been corrected or require additional work.
- Final Inspection and Acceptance: After completion of Punch List activities, the Contractor together with USAID and the relevant ministry representative will conduct a Final Inspection of Project activities including the Punch List. If parties are satisfied that the Punch List items have been completed, USAID and the GIROA sign the handover certificate.
- Final Warranty Inspection: When there is a warranty period, the Contractor, together with USAID and the relevant Ministry will conduct a Final Warranty Inspection of the Project. Following this inspection, responsibility will then be transferred to the relevant Ministry.

2.6 Capacity Building

USAID has a commitment to capacity development of Afghan organizations and individuals through their participation in USAID awards. To that end, Tetra Tech has included Afghan staff as program staff, Afghan engineering staff, and Afghan organizations as subcontractors, as applicable. The expatriate staff work closely with the Afghan staff to develop their skills including project management, project work flow, AutoCAD, construction, contracts, and technical writing.

[1] Substantial completion is defined as that performance of a [construction] contract which, while not full performance, is so nearly equivalent to what was bargained for that it would be unreasonable to deny the promise [contractor] the full contract price subject to the promisor's [owner's] right to recover whatever damages may have been occasioned by the promisee's [contractor's] failure to render full performance."

Tetra Tech is using SMART engineering, a local Afghan engineering firm, to provide staff to work in the Tetra Tech office as dedicated staff, but as a sub-contractor. This allows the local engineering firm's employees to gain valuable experience and to share experiences with the Tetra Tech expatriate staff.

Tetra Tech identified additional capacity building activities to be implemented as work orders. These include activities such as internships for university students, field trips to local construction sites to provide real world examples of engineering projects, and a professional society program. Section 5.5 provides more discussion on ongoing and proposed capacity building activities.

2.7 Collaboration/Coordination with Appropriate Stakeholders

The Tetra Tech team collaborates and coordinates with appropriate stakeholders when directed by the COTR. Appropriate stakeholders include International Security Assistance Force (ISAF), U.S Military, key Afghan ministries (e.g. Ministry of Finance (MoF), Ministry of Foreign Affairs (MoFA), and Ministry of Energy and Water (MEW)), provincial elected officials, donors, NGOs, communities, and others as identified by requirements of the work.

3.0 Program Staffing

3.1 Overview and Management

Since the submittal of the Final Work Plan on March 14, 2010, USAID has increased the scope of this program substantially, requiring a greater LOE in the initial years of the program. Three modifications (MOD5, MOD 6 and MOD 8) addressed additional staffing requested by USAID, and revised the labor categories and LOE of the Task Order. As a result of these modifications, Tetra Tech has expanded our in-country and home office team of resources, with a particular focus on adding staff members in the transportation, electrical, mechanical, and structural disciplines.

Figure 3-1 presents an updated organization chart that shows the key personnel and Afghan mid- and junior-level staff assigned to the AESP and authorized by USAID. Long-term and short-term technical assistance (LTTA and STTA) and reach back support personnel also are used as necessary. Specific staffing changes are presented in more detail below, and include nine additional expatriate positions, and 39 additional LN positions (also indicated graphically on the organization chart).

It can be anticipated that additional expatriate and LN technical staff will be added as the scope and nature of the work orders evolve and additional needs are identified.

3.2 In Country A-E Staff

3.2.1 Expatriate

Our in-country team is led by the Chief of Party (COP) who has full authority to execute the program and respond to the needs of OIEE.

The OIEE AESP Program added nine expatriate staff positions to bring the program total to 17 during the first year and to strengthen our discipline specific capabilities for expanding work order support and quality control. Positions added through contract modifications are clearly identified on the organization chart (Figure 3-1).

The AESP work plan initially called for the Deputy COP (DCOP) position to be filled by an Afghan engineer. However, a suitable candidate with the requisite skills and experience to fill this position has not been identified. As a result, USAID authorized the addition of a Deputy COP as an expatriate position under MOD8. The DCOP deployed to Kabul on August 26, 2010. We will continue to work closely with USAID to mentor an Afghan engineer to assume the role of Deputy Chief of Party (DCOP).

As shown on Figure 3-1, there are leads for each of the five sectors – water resources, vertical structures, energy, water/sanitation and transportation. The transportation sector lead was added in response to requests from the USAID COTR and A/COTR to expand capabilities in this area and specifically lead the Strategic Provincial Roads (SPR) QA Program. Tetra Tech also added a PRT Manager and a Senior QA Inspector to support expanded transportation work.

During Year 1, due to the expanding program needs, requests were received from the USAID COTR and A/COTR to add support staff members in the Civil/Structural, Electrical, and Mechanical/HVAC disciplines. In addition, a Technical Support Manager position and an

Administration Manager was added to assist in overall work order coordination and implementation. These positions were added as part of MOD6 and MOD8.

The organization chart also shows several expatriate staff positions that were included in the initial contract. These include two junior level engineering staff who work closely with the Afghan engineering staff. There is a Manager of Information Systems/Technical Writer (MIS Manager) who prepares the status reports and deliverables discussed in Section 6. The MIS Manager also helps prepare documents associated with applicable work orders. In addition, there is a Contracts/Procurement Manager and a Finance Manager who provide administrative oversight of these functions in Kabul.

Table 3-1 Expatriate Staff Plan AESP/OIEE (plan as of MOD 8)

Position	Workdays Ordered					
	Y1	Y2	Y3	Y4	Y5	Total
Chief of Party	[redacted]					
Deputy Chief of Party						
Vertical Structures Lead						
Energy Lead						
Water/Sanitation Lead						
Water Resources Lead[a]						
Transportation Lead[b]						
Contracts Manager						
MIS Manager						
Finance Manager						
Civil Engineer						
Civil Engineer						
VS Electrical Lead						
VS Mechanical Lead						
VS Civil/Struct Lead						
Tech Support Manager						
Administration Manager						
PRT Manager						
Sr QA Inspector						
STTA – IT Start Up						
STTA – IT Support						
STTA – Water/WW Eng						
STTA - Geologist						
STTA – TBN Civil - Sr						
STTA – TBN Civil - Mid						
STTA – TBN Civil – Jr						
Various – Home Office Reachback						
Total Workdays Ordered						

a. Anticipated to be 70% of full sector lead LOE

b. Anticipated to be 30% of full sector lead LOE

3.2.2 Local National

In support of Tetra Tech's capacity building program, 31 LN positions (both full time and part time) were included in the initial work plan. These include junior architects and engineers, administrative, finance and IT personnel, and several facilities support staff.

During the first year, the OIEE AESP added 39 LN staff members, through Contract MODs, in the areas of administration, accounting and civil engineering to strengthen the team's capabilities, particularly in the transportation sector. MOD 8 expanded that program significantly to 70 LN positions to accommodate that authorized work orders for the SPR QA Program and the PRT Support Program. We anticipate filling the 70 currently authorized LN positions as shown in the organization chart (Figure 3-1).

In addition to providing capacity development through hiring full-time staff through direct subcontracts, an important component of the AESP is partnering with Afghan firms both to develop much-needed local capacity and to better address local challenges. To that end, the Tetra Tech team partnered with SMART Engineering Team (SMART) and US Afghan Consulting and Constructing (USACC) at the outset of the AESP program. Over the remaining Year 1 and the upcoming Year 2 of the AESP, Tetra Tech will work with these firms by hiring junior and mid-level staff engineers and field staff for the PRT and SPR Programs. Surveying services are also being utilized on vertical structures projects on several projects. No additional in-country partners have been identified during the first year of the program; however, Omran (a LN geotechnical firm) is being utilized for geotechnical services on vertical structures and energy projects.

SMART is an Afghanistan-based civil, mechanical, and electrical engineering firm headquartered in Kabul with an additional six regional field offices. SMART partnered with Tetra Tech on the design of an Agricultural High School in Farah, Afghanistan and is currently designing a large irrigation and dam project for the Afghan Ministry of Energy and Water in Kunduz and Baghlam Province along the Kunduz River. SMART will provide a source of qualified local Afghan engineers and support staff to our team and to the AESP.

USACC, an Afghan multi-disciplined engineering and construction services firm, brings a combination of professional consulting expertise in housing design and construction, transport and hydropower development and water resource management to the project. The company's prime objective is to provide engineering and construction opportunities for local Afghan engineers in Afghanistan. USACC will provide a source of qualified local Afghan engineers and support staff to our team and to the AESP.

Additionally, Kabul University Faculty of Engineering has agreed to partner with Tetra Tech to provide internship and co-operative agreement opportunities for students and graduates as well as the potential for using members of the faculty on special projects and issues. This partnership will enhance our Team's ability to ensure that local construction methods and cultural issues are fully addressed. A memorandum of understanding was included in the Tetra Tech response to USAID's RFP. A new memorandum of understanding was prepared by the new Dean of the Faculty of Engineering and is included in Appendix A.

Tetra Tech has also made contact with Kabul Polytechnic to request a partnership under the AESP within the same guidelines as Kabul University. The memorandum of understanding with Kabul Polytechnic dated March 11, 2010 is included in Appendix A.

Tetra Tech is also committed to using the Afghanistan Technical & Vocational Institute (ATVI) to provide a source of technical staff to assist with building the capacity of the local Afghan supply chain and vendor community by providing training and opportunities for Afghans to use their new skills. A memorandum of understanding with ATVI was also included in Tetra Tech's RFP response.

3.3 In Country Support Services

In country support services consist of security, contracts and procurement, information technology (IT), and administration. There have been no substantial changes since the outset of the AESP program, and no changes are anticipated for Year 2. The following identifies in-country support services provided under the AESP.

- To ensure that our staff can safely complete work throughout the country, security for Tetra Tech is provided by GardaWorld (GW) as described in the Security Plan dated December 12, 2009 and updated August 16, 2010.
- Contracts and procurement staff support the AESP program with the following activities:
    - provide guidance to contractors/grantees as requested by OIEE;
    - provide support for procurement processes, including evaluation of contracts, and contract modifications;
    - provide assistance to the COTR in issuance and negotiating of change orders; and
    - writing JOFOC.
- Tetra Tech IT staff provide appropriate technology solutions as required to support ongoing operations. The staff consists of two Afghan IT specialists, who bring a wide array of systems engineering, technical support, and network operations skills to the table. They were recruited in part for their familiarity with sound industry-standard procedures and will receive ongoing training throughout the project.
- Administrative staff assists the A-E staff with document production, travel coordination and other administrative tasks.

3.4 Home Office

3.4.1 Technical Support

Home office technical reach back provides a cost-effective means of accessing essential and unique engineering expertise (such as geology, seismology, environmental and structural engineering) needed for accurate and high quality project designs. Tetra Tech's home office resource base consists of over 10,000 architects, engineers, and other technical support professionals spanning 50 technical and management disciplines. The home office technical support manager will continue to provide day-to-day support to the COP on requirements for technical home office support and STTA staffing needs. To date, more than 200 people have been approved to provide reach back support on the AESP.

3.4.2 STTA Staff Coordination

Technical specialists from the US are utilized as in-country STTA support staff for short term (2 to 6 weeks or longer) assignments to augment the in-country team as required. The STTA support staff approach provides the ability to respond to specific needs and to focus on complex technical issues and staff surge requirements. Geotechnical and survey STTA staff

have rotated into the program various times to provide support on the vertical structures and energy work orders. Tetra Tech's airport planning specialist provided services for the Limited Airport Master Plans (LAMPs) program through a STTA arrangement.

3.4.3 Administration and Personnel Support

Overall project administration and personnel support is provided by the home office. This includes human resources for expatriate staff, deployment support, and financial management. LN personnel administration and support is provided by the Tetra Tech office in Kabul. The COP provides day-to-day project administration. During Year 2, the added Administrative Manager position will provide in-country support with project administration.

3.5 Assignment Staffing

Depending on the type of work, reach back support, STTA staff, or special local consultants may be required. Tables 3-2 to 3-6 present the anticipated source of staffing for the various types of activities described in Sections 2.2 to 2.6. To the extent practical, Year 2 will allow for work to be completed by in-country expatriate and LN staff.

Figure 3-1

AESP Organization Chart

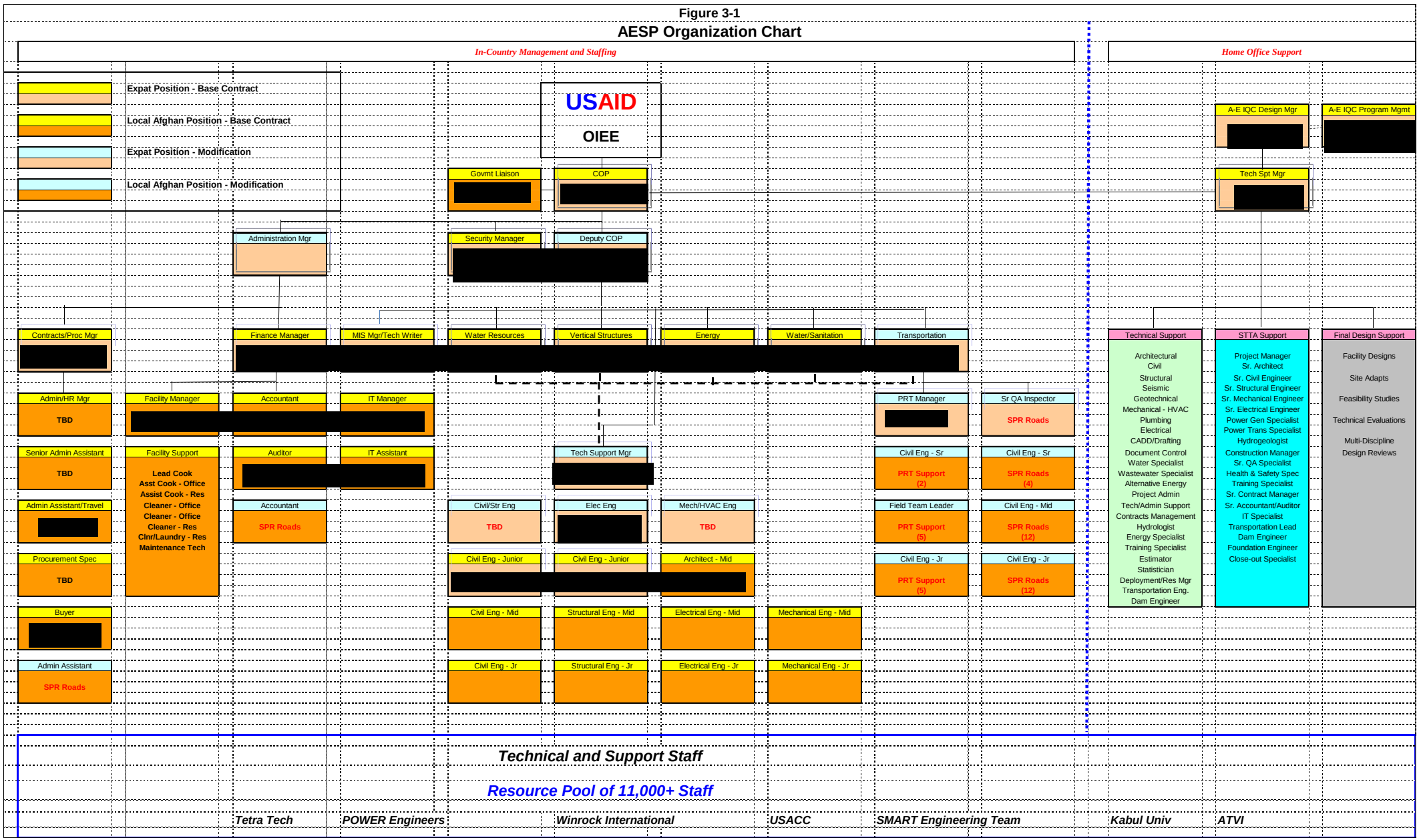


Table 3-2 Energy Sector Assignment Staffing

Activity	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	Specialty Consultant Reach Back	STTA Technical Assistance	Special Local Consultant
A. Planning Activities							
	Electrical Generation Master Planning			x	x		
	Load Studies			x	x		
B. Design Activities							
	Support Vertical Structure Design						
		MEP Design Review	x	x			
		HVAC	x	x			
		Plumbing	x	x			
		Fire Protection	x	x			
		Fuel and Gas Piping	x	x			
		Site Electrical	x	x			
		Power Distribution	x	x			
		Standby Power Systems	x	x			
		Solar Photovoltaic Systems	x	x			
		Interior Lighting	x	x			
		Site Lighting	x				
		Internal Building Telecommunications	x	x			
	Power Distribution						
		Medium Voltage Public Distribution			x	x	x
		Secondary Substations			x	x	x
	Generation and Transmission						
		High Voltage Transmission Lines			x		
		Primary Substations			x		
		Power Generation (Power Plants), Oil & Gas			x		
		Generation (Power Plants), Micro-Hydro, Wind & Solar			x	x	x
		Utility Management Practices, Tariff Analysis, Regulation		x	x		
		Economic Growth Analysis		x	x		
	Roadways						
		Roadway Lighting	x				
	Communication Infrastructure						
		Site Outside Plant		x			
		Local Communications Switch Facility		x		x	

Activity	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	Specialty Consultant Reach Back	STTA Technical Assistance	Special Local Consultant
		Communications Public Distribution		x		x	
C. Technical Support Oversight							
	General Technical Support in Energy		x	x			
D. Capacity Building							
	Development of Afghan Energy Organizations and Professionals		x				
	Attend Professional Conferences		x				
	Participate in Professional Societies		x				
E. Collaboration/Coordination with Appropriate Stakeholders							
	General Tetra Tech Collaboration/Coordination with Appropriate Stakeholders		x				
	Attend Implementing Partner Meetings		x				
	Attend Inter-Ministerial Committee Meetings		x				

Table 3-3 Vertical Structures Sector Assignment Staffing

Activity[a]	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	STTA Technical Assistance	Special Local Consultant
A. Planning Activities						
	Vertical Structures Master Planning					
		Site Utilization Studies	x	x		
		Site Master Planning	x	x		
		Land Use Study Agency Board Processing	x	x		
		Site Selection Studies	x	x		
B. Design Activities						
	Pre-Design Service					
		Project Programming	x			
		Project Development Scheduling	x			
		Agency Consulting and Review	x			
		Existing Facility Survey and Evaluation	x			
		Facility Planning Study	x			
		Feasibility Study	x			
	Architectural Design					
		Architectural Programming	x			
		Conceptual Design/Schematic Design	x			
		Design Development	x	x		
		Construction Documents	x	x		
		Construction Specification	x	x		
		Construction Cost Estimating	x			
		Landscape Design Coordination	x			
		Civil Engineering Design Coordination	x			
		Engineering Design Coordination	x			
		Code Compliance Study	x	x		
		Control and Phasing	x			
	Building Engineering Design[b]					
		Building Structural Design		x		
		Building Seismic Design		x		
		Building HVAC		x		
		Electrical	x	x		
		Plumbing	x	x		
		Fire Protection Design	x	x		
	Civil Engineering Design[c]					

Activity[a]	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	STTA Technical Assistance	Special Local Consultant
		Sites up to 2-Acres	x			
	Bidding and Negotiation					
		Bidding Documents		x		
		Bidding Negotiation	x			
		Bid Evaluation	x			
		Construction Cost Assistance	x			
	Construction Administration					
		Construction Observation	x			
		Field Reports	x			
		Shop Drawings Review and Approval	x			
		Change Order Monitoring and Processing	x			
		Application for Payment Review and Approval	x			
	Post-Construction Services					
		Start up Assistance			x	
		Record Drawings	x			
		Warranty Review	x			
	Miscellaneous Services					
		Graphic Design		x		
		Rendering		x		
		3D Modeling and Presentation	x	x		
		Presentations		x		
		Color, Signing System and Graphics		x		
		Model Making	x			
C. Technical Support Oversight						
	General Technical Support in Architecture		x			
D. Capacity Building						
	Development in Afghan Architectural Organizations and Professionals		x			
E. Collaboration/Coordination with Appropriate Stakeholders						
	General Tetra Tech Collaboration/Coordination with Appropriate Stakeholders		x			

a. Includes vertical structures and vertical structure support activities
b. Depending on the size and complexity of the project, Tetra Tech reach back assistance may be needed in providing some of the Engineering Services
c. Sites larger than 2 acres will be assigned to Local Staff, but Tetra Tech reach back assistance may be needed.

Table 3-4 Water and Sanitation Sector Assignment Staffing

Activity	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	STTA Technical Assistance	Special Local Consultant
A. Planning Activities						
	Water and Sanitation Master Planning					
		Water demand and wastewater generation estimates	x			
		Identification and yield analysis of water supplies		x		
		Raw water quality	x			
		Potable water standards		x		
		Wastewater treatment Standards	x			
		Service area delineation	x			
B. Design Activities						
	Water Treatment	Pre-treatment		x		
		Treatment		x		
		Disinfection		x		
		Storage		x		
		Instrumentation and controls		x	x	
		Plant start-up			x	
		O&M services			x	x
	Water Transmission & Distribution					
		Transmission mains	x	x		
		Distribution mains	x	x		
		Hydraulic modeling	x	x		
		Pump Stations	x	x		
	Wastewater Collection					
		Gravity Sewers	x	x		
		Force Mains	x	x		
		Pump Stations	x	x		
		Collection system modeling			x	
	Wastewater Treatment					
		Wastewater characterization		x		
		Flow monitoring	x	x		
		Pre-treatment	x	x		
		Secondary treatment	x	x		
		Tertiary treatment		x		
		Disinfection	x	x		
		Solids handling	x	x		

Activity	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	STTA Technical Assistance	Special Local Consultant
		Instrumentation and controls	x	x	x	
	Wastewater Operation		x		x	
		Plant start-up			x	x
		Training			x	x
		O&M Services			x	
	Construction Support		x			x
		Construction Administration	x			x
		Field Inspection	x	x		x
		RFIs	x	x		
		Design Certifications	x		x	
		Record Drawings (As-Builts)	x	x		
C. Technical Support Oversight						
	General Technical Support in Water and Sanitation		x			
D. Capacity Building						
	Development in Afghan Water and Sanitation Organizations and Professionals		x			
E. Collaboration/Coordination with Appropriate Stakeholders						
	General Tetra Tech Collaboration/Coordination with Appropriate Stakeholders		x			

Table 3-5 Transportation Staffing Assignment Sector

Activity	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	STTA Technical Assistance	Special Local Consultant
A. Planning Activities						
	Transportation Master Planning					
		Traffic Studies		x		
		Road/Interstate Analysis		x		
		Aviation Facilities Analysis		x		
		Railroad Analysis		x		
		Pedestrian Traffic Analysis		x		
		Multi-Modal Transit Analysis		x		
B. Design Activities						
	Road/Inter-province Analysis					
		Inter-province Design		x		
		Local Roadway Design	x			
		Intersection & Widening Improvements	x			
		Site Ingress/Egress Design	x			
		Site Circulation Design		x		
		Reconstruction and Improvements	x			
		Roundabout Design		x		
		Signal/Signage & Striping Design		x		
	Traffic Studies	Demand Forecasting Modeling		x		
		Site Circulation & Access Studies		x		
		Congestion Management Studies		x		
		Downtown/Urban Studies		x		
	Aviation Facilities	Public		x		
		Military		x		
	Railroad Analysis	Road Crossing/Intersection Design		x		
		Rehabilitation Design - Track/Bridges/Terminals			x	
		Signal Design			x	
		Terminals			x	
	Pedestrian Traffic Analysis	Traffic Flow Analysis		x		
		Site Circulation Design		x		
	Design for Construction	Traffic Control Plans	x			
		Site Inspections	x			
	Intelligence Systems	Operation/Safety & Efficiency Designs			x	
	Pavement Management	Survey of Conditions	x			x

Activity	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	STTA Technical Assistance	Special Local Consultant
		Life Cycle Cost Analysis		x		
		Alternative Strategies & Costs		x		
	Capital Improvement Plans	Development of budgets & Prioritization	x			
		Program Implementation & Management	x			
C. Technical Support Oversight						
	General Technical Support in Transportation		x			
D. Capacity Building						
	Development in Transpiration Organizations and Professionals		x			
E. Collaboration/Coordination with Appropriate Stakeholders						
	General Tetra Tech Collaboration/Coordination with Appropriate Stakeholders		x			

Table 3-6 Water Resources and Dams Sector Assignment Staffing

Activity	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	STTA Technical Assistance	Special Local Consultant
A. Planning Activities						
	Water Resources Master Planning					
		Water Quality Assessments	x			
		Floodway Studies	x	x		
		Sediment Transport	x			
		Water Storage/Dam Studies	x	x		
		Stormwater Management/Master Drainage Studies	x			
		Source Water Protection	x	x		
		Designated Uses and Water Quality Standards	x	x		
		Disaster Prevention and Contingency Planning	x	x		
		Agricultural Runoff Assessments	x	x		
		Erosion Control Planning	x	x		
		Ground and Surface Water Hydrology	x	x		
		Wetlands Delineation	x	x		
B. Design Activities						
	Stormwater Management					
		Erosion Control Design/Best Management Practices (BMPs)	x			
		Agricultural Runoff Control	x			
		Flood Control	x	x		
		Infiltration Controls	x			
	River and Stream Restoration					
		Stream Channel Restoration	x			
		Habitat and Ecosystem Restoration				x
		Flow Control Structures	x	x		
	Water Storage Dam Design					
		Water Storage Volume	x	x		
		Watershed Area	x	x		
		Sediment Volume	x	x		
		Structure Design	x	x		x
		Spillway Design	x	x		
		Risk Assessment	x	x		
		Existing Dam Stabilization	x			

Activity	Activity Type	Sub-Activity	In-Country Staff	Tetra Tech Reach Back	STTA Technical Assistance	Special Local Consultant
	Wetlands					
		Engineered Wetlands Design	x	x		
C. Technical Support Oversight						
	General Technical Support in Water Resources		x			
D. Capacity Building						
	Development in Water Resources Organizations and Professionals		x			
E. Collaboration/Coordination with Appropriate Stakeholders						
	General Tetra Tech Collaboration/Coordination with Appropriate Stakeholders		x			

4.0 Deployment

Figure 3-1 presents an updated AESP organization chart and depicts three open expatriate positions as of the date of this Work Plan. These positions include the Administrative Manager, SPR QA Inspector, and Mechanical Engineer. It is expected that these positions will be filled and deployment will occur before the end of Year 1. During this second contract year, the only anticipated deployment will be the rotation of the 19 approved expatriate positions. Depending on the type of work, reach back support, STTA staff, or special local consultants may also be required.

5.0 Work Orders

5.1 Overview

Work Order (WO) procedures remain unchanged since the Final Work Plan submitted on March 14, 2010. Tetra Tech's point of contact with USAID is the project COTR (or alternate contracting officer's technical representation (A/COTR) when the COTR is unavailable). Likewise, USAID's point of contact with Tetra Tech is the project COP, or the DCOP, when the COP is unavailable. To ensure smooth and strategic implementation of the project, it is critical that USAID and Tetra Tech always have and share the same information and decision making processes. To achieve this, our communication channels are open but limited to this single point of contact for work order initiation and approval. The Tetra Tech team communicates with USAID and other US Government (USG) entities through and in collaboration with the COTR. Communication to Tetra Tech from USAID and other USG entities is channeled through our COP. This facilitates collaborative and focused planning that prioritizes and allocates resources consistent with the project mandate and the needs of the USG.

5.2 Work Order Process Flow

WO requests are initiated by USAID through the COTR or A/COTR. The COTR (or A/COTR) advises the COP of a WO request. There are two types of WOs described in this TO, Administrative Work Orders (WO-A) and Long Term Work Orders (WO-LT). Refer to Figure 5-1 for an illustration of the anticipated WO process flow.

5.2.1 Administrative Work Order (WO-A)

A WO-A is a work order typically related to energy, water, wastewater, buildings, or transportation with the anticipated total level of effort (LOE) less than or equal to 18 man days (144 man hours). WO-As include, but are not limited to, conducting site visits, review of plans and designs, logistical support for visits, drafting concepts, presentations, correspondence, and providing technical analysis. The COTR (or A/COTR) requests work under a WO-A to the COP. Atypical requests outside of the five sector disciplines are addressed on a case-by-case basis. Tetra Tech confirms the WO request in writing to the COTR and A/COTR before commencing work as shown in Figure 5-1.

5.2.2 Long Term Work Order (WO-LT)

A WO-LT is a work order related to energy, water, wastewater, buildings, or transportation with the anticipated total LOE greater than to 18 man days (144 man hours). To implement a WO-LT, the COTR (or A/COTR) submits a WO request to the COP. The WO request

includes a brief description of the requirements including the project background, objective, tasks, deliverables, timeframe, proposed LOE and proposed skill sets required.

Upon receipt of the WO request, the COP designates a project Technical Lead. From the WO request, the project Technical Lead prepares a WO proposal collaborating with the USAID Technical Point of Contact (POC). The WO proposal includes the elements of the WO request and/or any modifications proposed by Tetra Tech. The WO proposal also includes staffing and budget projections for expatriate staff, LN staff, sub-contractors, and reach back assistance. Upon review and approval from the COP, the WO proposal is transmitted to the COTR and A/COTR. The COTR (or A/COTR) reviews the WO proposal. Upon written approval of the WO proposal, the WO-LT is assigned a number for tracking purposes and work can commence.

5.3 Additional Scope Requests

If a WO request is received that may be outside the Scope of Work and detailed work requirements as described in Sections C.3 and C.4 of the Task Order, it is reviewed with the CO and COTR so a WO-A, WO-LT or other contract mechanism can be authorized as appropriate.

5.4 Tracking

Per the TO, it is the joint responsibility of OIEE and Tetra Tech to track the budget over the course of the project. To aid in tracking, Tetra Tech assigns a number for each WO starting with 0001. WO-A's are numbered WO-A-0001, WO-A-0002, etc. Similarly, WO-LTs are numbered WO-LT-0001, WO-LT-0002, etc. In order to facilitate the compilation of the LOE for related WOs, letters are added after the WO number (e.g. WO-LT-0001A) when a modification or extension to an existing WO is issued. This facilitates budget and scope tracking at the project (and work order) level without opening an additional work order.

Tetra Tech tracks progress and budget for each WO in a format agreed upon with OIEE and submits updates to the COTR on a weekly basis. An example of the WO tracking sheets are provided in Appendix A (Active and Pending Work Order Status and Completed Work Orders). Additionally, Tetra Tech tracks hours, subcontractor costs, and expenses on each open WO and reports them in the quarterly and annual reports.

5.5 Administrative Work Orders to Promote Capacity Building

Tetra Tech identified the following activities for potential work orders during Year 1. These activities support the mission of the AESP, and are being undertaken as administrative work orders (WO-As) through Year 2:

5.5.1 Afghan First Contractor Capacity Building

Tetra Tech completed the Afghan Contractor Capacity Building Data Collection administrative work order in Year 1 and will continue to help USAID develop the Afghan First program in Year 2 by facilitating a series of IP meetings to discuss the issues identified in the initial research. Further Afghan First program efforts are expected in Year 2.

5.5.2 University Internship Program

Tetra Tech established a cooperative education program with Kabul University Faculty of Engineering, Kabul Polytechnic and ATVI. Tetra Tech is proposing that, each semester, three or four students come into the Tetra Tech office a few afternoons a week to work with the engineering staff and get hands on experience. The schedule will be coordinated with the universities so the internship does not conflict with the student's academic schedule.

5.5.3 Women in Engineering

Tetra Tech established a gender specific capacity building program where Tetra Tech's female engineering staff visit Kabul University and Kabul Polytechnic and host a series of informal meetings for mentoring the female students to discuss issues in the engineering profession. Tetra Tech professionals have presented examples of A&E plans as well as scheduled field visits to construction sites. For each meeting, a report summarizing the number of attendees and topics discussed is prepared and submitted to OIEE.

5.5.4 Networking Workshops

Tetra Tech hosts monthly meetings for the COPs of OIEE programs and OIEE staff. This allows for information sharing and technology transfer between the various USAID OIEE programs so programs can benefit from each other's experience. There are no facilities rental costs for this program. Discussions at previous meetings include the Afghan First Program, Security, and USAID reporting requirements. Agendas for Year 2 are being developed for AESP COTR concurrence.

5.5.5 Technical Academic Resources

Tetra Tech proposed that the Deans of the Kabul University Engineering School, Kabul University School of Agriculture, and Kabul Polytechnic be invited to individually address USAID and the various COPs at the above noted networking workshops. This would give the universities and an opportunity to present their academic programs and discuss what they can offer in the way of training assistance, testing, and research. Inviting ATVI to address the workshops is also a possibility. This approach will be incorporated into the Year 2 COP workshop plan.

5.5.6 Professional Society Program

Tetra Tech proposed to develop a written plan to establish an Afghanistan Society of Architects. This plan will be a focused effort during the last quarter of Year 1 with continuing efforts during Year 2.

5.5.7 Engineering Field Trips and Demonstrations

Tetra Tech proposed to develop training programs such as field trips to local construction and infrastructure sites to provide real world examples of engineering projects. Examples for potential field trip destinations include roadway construction projects, wastewater treatment or power plants. Year 1 field trips included the wastewater package plant at Kabul Airport and USACOE Darulaman, Ghazi High School, and Sardar Girls School. Year 2 construction sites are anticipated at the Regional Training Center site at the Afghanistan Civil Service Institute, the Ministry of Public Health, and Kabul University.

Moreover, a construction demonstration program could also be developed collaboratively with ATVI to provide training on construction techniques, construction QA, and methods. A potential project would be to construct a demonstration CMU wall.

5.6 Long-Term Work Orders to Promote Capacity Building

Tetra Tech is supporting OIEE on two long-term work orders that are aimed at capacity building.

5.6.1 SPR Roads Program (WO-LT-0007)

Tetra Tech is providing quality assurance (QA) review services on new roadways projects. The work includes development of a QA plan, monitoring of construction activities and roadways inspections. This 3 year program includes hiring and training 28 local national inspectors to complete more than [redacted] in construction monitoring and oversight.

5.6.2 PRT Support Program (WO-LT-0009)

Tetra Tech is providing five teams of specialists to visit the provincial reconstruction teams (PRTs) to identify local community development projects. The teams include an engineer and a community development specialist who works with the PRTs to identify projects, draft details scopes of work, and develop schematic drawings to be used to secure CERP funding for the proposed projects. This program is expected to invest more than [redacted] into local development projects aimed at improving quality of life in remote provinces and provide long-term job opportunities for engineers and skilled laborers. Year 2 efforts are currently funded for the first quarter only.

5.7 Completed, Pending and Anticipated Work Orders

Table 5-1 presents an overview of WOs completed to date. More detail on completed WOs is provided in the Quarterly Progress reports submitted on February 23, 2010; May 6, 2010 and July 21, 2010.

Table 5-2 provides a listing of current or pending WOs. Pending work orders include the following:

- Vertical Structures Best Practices Document Outline (WO-A-0035): The purpose of this administrative work order is to prepare an outline for a document that will help standardize USAID vertical structures design and construction standards and processes.

- Vocational Training Center (VTC) Green Design (WO-LT-0014): Under this long term work order, Tetra Tech is requested to prepare construction plans from already produced concept design plans for the VTC building. As part of the final design, Tetra Tech would focus on green/sustainable building design components.

- Kandahar 10MW Solar (WO-LT-0016): Under this long term work order, Tetra Tech would design a solar array capable of delivering 10 MW of power to the Kandahar area.

Following are the estimated Year 2 projections for WOs in each of the five sectors based on the trend from the completed WOs to date and the remaining LOE on WOs in progress. MOD8 approved a [redacted] budget for Year 2. Work orders are anticipated to be approximately [redacted] of that budget totaling an estimated [redacted].

- Energy – 6%
  Approximately 3% of the work in Year 1 was in the Energy Sector. This work is expected to grow this year due to the perceived emphasis on the Northeastern Power System connection to the Southeastern Power System and power emphasis on Kandahar.

- Transportation – 37%
  In the beginning of Year 2, the Light Airport Master Plan (LAMPS) program will continue and the Southern and Eastern Provincial Road (SPR) QA Program will ramp up. The LOE for the SPR Program is expected to be over $[redacted] in Year 2. OIEE has conveyed that there will be an increased emphasis on roadway infrastructure during the upcoming fiscal year.

- Vertical Structures – 52%
  The Vertical Structures sector work not only includes architectural and structural engineering services but also includes site civil design, MEP, and on-site water and sanitation design. In Year 1 this work was about 86% of the completed work orders. This work is expected to continue in Year 2 with the continuation of the Training Center site designs, the Ministry of Public Health technical support, Kabul University technical support, Ghazi Boys High School Administration Building design, and Sardar Girls School design. Following the trend from Year 1, numerous other vertical structures administrative work orders for vertical structures drawing reviews are expected in Year 2.

- Water Resources – 3%
  Following the work from Year 1, continued work on dams is expected in Year 2; however, OIEE has not specifically identified projects or indicated the LOE in this sector for Year 2.

- Water and Sanitation – 1%
  Although there is no work specific to this particular sector projected for Year 2, most of the water and sanitation related work is projected to be done on vertical structures projects and is included in that forecast. There is an expectation that the Kabul Water Supply System MTP-1 Bid Package, being prepared by Fitchner W-T Joint Venture, will be ready for procurement and USAID funding in Year 2. Additional Tetra Tech review of these documents is anticipated for the water line extension.

- Miscellaneous Technical Support – 1%
  Under the AESP contract, Tetra Tech is available to provide various technical support services and provide capacity building efforts. Tetra Tech will continue to provide these services in Year 2 including the continuation of the Afghan First Contractor Capacity Building Program.

Notes:

[1] PM and RBM to review and advise if added reach back funding is required.
[2] Contracts Manager to track if there are comments from OIEE CO and advise COP
[3] All use of reach back resources to be coordinated by Technical Support Manager (TSM)
[4] Use of Special Local Consultant and STTA will require OIEE CO & COTR approval
[5] COP, DCOP or MIS Manager shall attend all meetings with USAID-OIEE

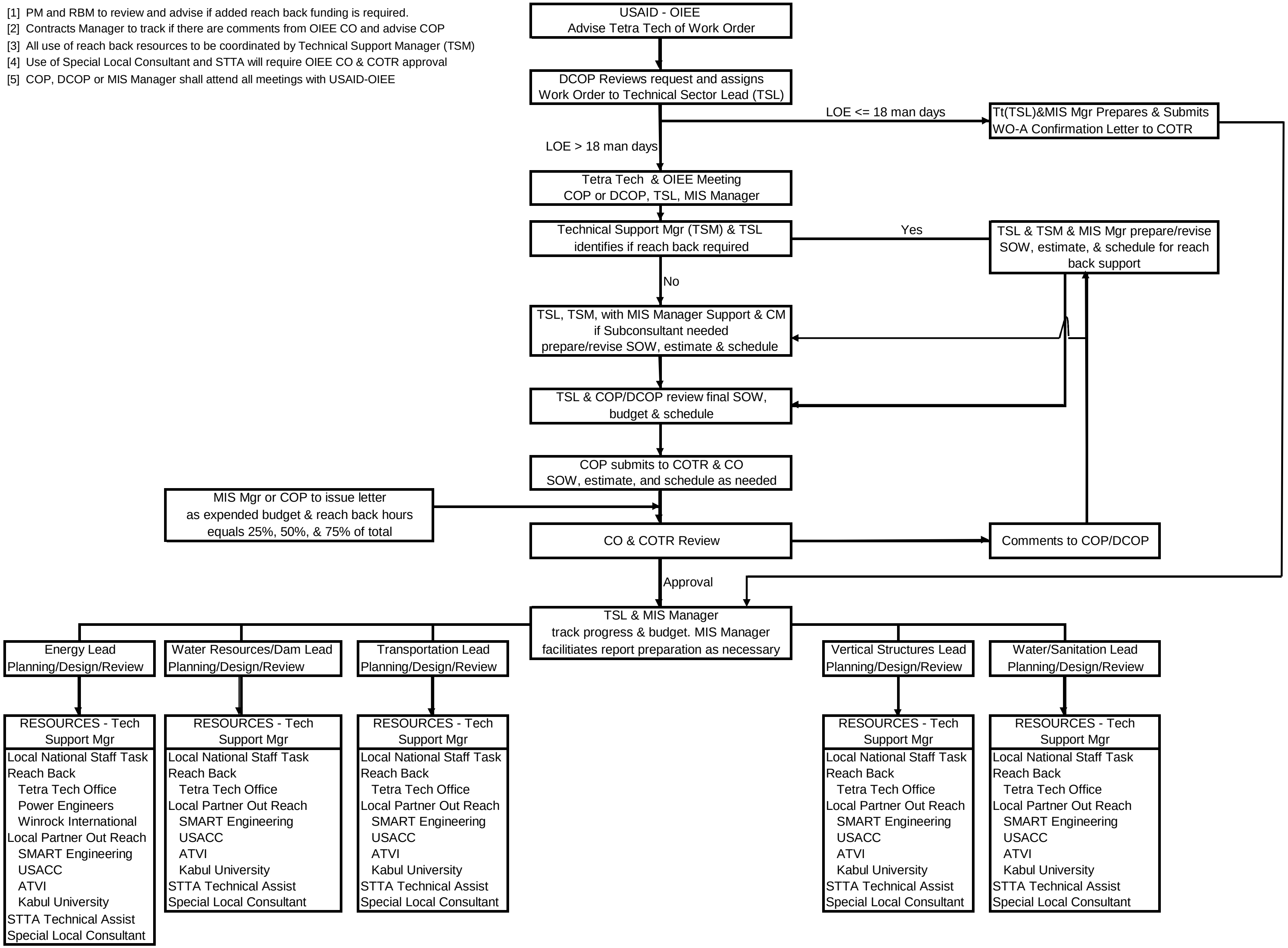


Figure 5-1: Work Order Process Flow Chart

Table 5-1 Completed Work Orders

Afghanistan Engineering Support Program
IQC: Task Order 01 - EDH-I-00-08-00027-00
USAID Technical Office: USAID/Office of Infrastructure, Engineering, and Energy (OIEE)
Revised August 17, 2010 (Reporting Thru August 8, 2010)

Energy
Water Resources
Vertical Structures
Transportation
Water and Sanitation
Multi-Disciplinary

Work Order Number	Program Type	Description	Work Order NTP Date	Scheduled End Date	Completed Date	Estimated Cost (ROM)	In Country Cost to Date	Reach Back Cost to Date
WO-A: Completed Administrative Work Orders								
WO-A-0001	W/S	Review Kabul Water Study	12/28/2009	1/15/2010	1/17/2010	NA		
WO-A-0001A	W/S	Review of Kabul Water MTP-1 Bid Docs	2/2/2010	3/15/2010	3/16/2010	NA		
WO-A-0002	VS, E, & W/S	Review of AUAF Master Plan Infrastructure	12/28/2009	1/4/2010	1/6/2010	NA		
WO-A-0002A	VS, E, & W/S	AUAF Master Plan Rev & SOW/ROM	1/25/2010	2/6/2010	2/6/2010	NA		
WO-A-0003	W/S	GBHS Sanitation	1/13/2010	2/28/2010	2/22/2010	NA		
WO-A-0004	E	GBHS Electrical	1/13/2010	2/28/2010	2/15/2010	NA		
WO-A-0005	W/S	GBHS Water Supply	1/13/2010	2/28/2010	2/22/2010	NA		
WO-A-0006	W/S	Sardar GHS Sanitation	1/16/2010	2/28/2010	2/22/2010	NA		
WO-A-0007	E	Sardar GHS Electrical	1/16/2010	2/28/2010	2/15/2010	NA		
WO-A-0008	W/S	Sardar GHS Water Supply	1/16/2010	2/28/2010	2/22/2010	NA		
WO-A-0009	E	Integration of Nangarhar into NEPS	1/30/2010	3/31/2010	5/11/2010	NA		
WO-A-0010	PA	Review of BS-25 Draft Position	2/2/2010	2/5/2010		NA		
WO-A-0011	E	HFO Feasibility for Tarakhil Power Plant	2/3/2010	3/31/2010	4/26/2010	NA		
WO-A-0012	PA	Position Advertisements	2/15/2010	2/25/2010	3/7/2010	NA		
WO-A-0013	E	Third Party MEP Review of IOM 20 Bed Hospital	2/17/2010	3/15/2010	3/14/2010	NA		
WO-A-0014	PA	Construction Equipment Costs	2/23/2010	3/4/2010	2/25/2010	NA		
WO-A-0015	E	MOT Electrical	3/4/2010	4/30/2010		NA		
WO-A-0016	VS	AUAF Board of Trustees Support	3/6/2010	3/31/2010		NA		
WO-A-0017	VS	Faculty of Education	3/15/2010	3/25/2010		NA		
WO-A-0018	WR	Dam #1 Review for Pul-e-Khumri	3/28/2010	5/1/2010	5/2/2010	NA		
WO-A-0019	WR	Dam #2 Review for Pul-e-Khumri	3/28/2010	5/1/2010	5/2/2010	NA		
WO-A-0020	E	SEPS Additional Work	4/1/2010	4/30/2010	4/18/2010	NA		
WO-A-0021	VS	MoEW VTC Rehab Drawing Review	4/6/2010	4/20/2010	4/20/2010	NA		
WO-A-0022	VS	50 Bed Wmn Hosp Drawing Review	4/6/2010	4/12/2010	4/12/2010	NA		
WO-A-0023	CA	Data Collection for Afghan Contractors Capacity Building	4/11/2010	8/7/2010		NA		
WO-A-0025	WR	Kajaki Dam	4/12/2010	4/30/2010	6/2/2010	NA		
WO-A-0027	E	National Electric Distribution Work Unit Quantity Model	4/18/2010	5/31/2010	7/10/2010	NA		
WO-A-0028	VS	IOM 50 BH Samangan Geotech Review	4/18/2010	4/21/2010	4/21/2010	NA		
WO-A-0029	VS	CHEF PTTC Drawing Review	4/20/2010	4/28/2010	4/29/2010	NA		
WO-A-0030	VS	ISD-DGA Proposal Review	4/22/2010	4/28/2010	4/28/2010	NA		
WO-A-0031	VS	100 BH IQC Comparison ROM	4/28/2010	5/7/2010	5/7/2010	NA		
WO-A-0032	WR	Pul-e-Khumri Cost Estimate	4/29/2010	5/10/2010	6/2/2010	NA		
WO-A-0033	VS	MoPH Complex Structural Design Review	5/12/2010	6/2/2010	6/8/2010	NA		
WO-A-0034	WR	Kajaki Dam SOW	5/8/2010	6/19/2010	7/6/2010	NA		
WO-A-0036	VS	AUAF 3D CDR Presentations	5/9/2010	6/3/2010	6/12/2010	NA		
WO-A-0037	T	Doshi to Salang Tunnel Pavement Design Review	5/15/2010	5/29/2010	7/11/2010	NA		
WO-A-0040	Tech Support	Power Point Presentation	5/27/2010	6/4/2010	6/15/2010	NA		
WO-A-0042	VS	AVIPA Processing Plant Review	6/5/2010	6/30/2010		NA		
WO-A-0044	VS, E, & W/S	Kabul University DFAC and Laundry 35% Design Review	6/16/2010	6/24/2010	7/25/2010	NA		
WO-A-0048	CA	Action Memo SGFDP	7/27/2010	7/31/2010	7/31/2010	NA		

Table 5-2 Active and Pending Work Order Status
Afghanistan Engineering Support Program
IQC: Task Order 01 - EDH-I-00-08-00027-00
USAID Technical Office: USAID/Office of Infrastructure, Engineering, and Energy (OIEE)
Revised August 17, 2010 (Reporting Thru August 8, 2010)

Energy
Water Resources
Vertical Structures
Transportation
Water and Sanitation
Multi-Disciplinary

Work Order Number	Program Type	Description	Work Order NTP Date	Scheduled End Date	Estimated Cost (ROM)	In Country Cost to Date	Reach Back Cost to Date	Total Cost to Date
WO-A: Administrative Work Orders								
WO-A-0024	CA	Afghan First COP Meetings	8/17/2010	11/30/2010				
WO-A-0038	E	Execution Plan for RC-East and Nangarhar Elec Power Distribution Program	5/12/2010	6/30/2010				
WO-A-0039	WR	Kajaki Dam Cost Review	5/18/2010	9/30/2010				
WO-A-0043	WR	Shahtoot and Sarobi II Dam Review	6/16/2010	8/31/2010				
WO-A-0045	T	Chagcharan Airport Site Visit	6/21/2010	12/30/2010				
WO-A-0046	E	Jalalabad Elec Power Distribution	7/13/2010	9/15/2010				
WO-A-0047	T	Technical Review Maimana & Faizabad Airport	7/21/2010	12/30/2010				
WO-A-0049	WR	Badakshan Bridge Independent Review	8/1/2010	8/31/2010				
WO-A-0050	TS	USAID DVD/CD Filing	8/6/2010	10/5/2010				
WO-A-0051	E	MOT Electrical Phase II Drawing Review	8/17/2010	9/11/2010				
WO-A-0052	E	NEPS-SEPS Connection Review	8/15/2010	8/30/2010				
WO-A-0053	E	ACEP Report Review	8/18/2010	9/11/2010				
WO-A-0054	E	NLCC 30% Electrical Design Review	8/18/2010	8/21/2010				
WO-LT: Long Term Work Orders								
WO-LT-0001	VS	Regional and Provincial Training Centers Concept and Final Design	1/5/2010	9/10/2010				
WO-LT-0002	VS, E, & W/S	AUAF Concept Design	2/18/2010	8/30/2010				
WO-LT-0004	W/S, E	MoPH Design Management: Extension of Staff Services & Design Reviews	3/17/2010	11/30/2010				
WO-LT-0005	W/S, E	GBHS Utility Construction Documents	3/17/2010	6/15/2010				
WO-LT-0006	W/S, E	SGHS Utility Construction Documents	3/17/2010	5/15/2010				
WO-LT-0007	T	QA Oversight SPR - Southern & Eastern Afghanistan	6/7/2010	6/7/2011				
WO-LT-0008	T	LAMPs for Maimana & Faizabad Airport	5/5/2010	10/31/2010				
WO-LT-0009	T	PRT Field Support	8/6/2010	3/6/2011				
WO-LT-0012	E	PK to Chimtala Transmission Line	6/10/2010	9/4/2010				
WO-LT-0013	VS	Three Towers Project	6/3/2010	11/30/2010				
WO-LT-0015	VS, E, & W/S	Kabul University Men's Dormitory Construction Inspection and DFAC 65% and 100% Design Review	7/25/2010	12/31/2010				
Pending Work Orders								
WO-A-0035	VS	Vertical Structures Best Practices Document Outline						
WO-LT-0014	VS	VTC Green Design						
WO-LT-0016	E	Kandahar 10 MW Solar						

6.0 Reporting and Deliverables

Tetra Tech provides accurate and timely reporting to USAID as specified in the TO and summarized below.

6.1 Work Plan

This document serves as the required work plan for the entire TO with specific focus on the first year. It is intended to be a 'living document' that will be reviewed and modified as the AESP develops. Note that this revision (August 19, 2010) updates a prior revision of March 14, 2010. The Work Plan includes items such as arrival dates, work activities, and long- and medium-term postings. It also includes a description of the Tetra Tech management structure, work flow, and overall program approach. The finalized work plan will become part of the TO as a modification to the TO.

6.2 Security Plan

The Security Plan provides information on the personnel and physical security for the TO. The Security Plan was submitted for review and approval by the COTR under separate cover on December 12, 2009. With OIEE concurrence, the Final Security Plan was submitted on February 23, 2010. The Security Plan will be updated and refined as local conditions change and as the project's security needs require refinement.

6.3 Performance Monitoring Plan

In accordance with the TO, a Performance Monitoring Plan (PMP) was submitted to and approved by the COTR within 90 days of the Contract award. The PMP establishes performance indicators to measure the program's progress and accomplishments. The submittal of the PMP will depend on a timely approval of the PMP preparer by USAID.

6.4 Weekly Meetings

The Tetra Tech team holds weekly meetings with the COTR to discuss the AESP progress and resolve problems as required. The Tetra Tech COP prepares meeting minutes including a list of the issues discussed and action items for each meeting and sends them to the COTR for concurrence.

6.5 Quarterly Progress Reports

Quarterly progress reports are submitted 10 days after the end of the reporting period. Submission of this report follows the USG reporting schedule, which begins October 1. A fourth quarter report is not required as that information is submitted in the annual report as noted in Section 6.7. Thus, reports are to be submitted on or before January 10, April 10, and July 10 of each year. To date, Tetra Tech has submitted quarterly reports on February 23, 2010; May 6, 2010 and July 21, 2010for activities in Year 1.

The quarterly reports summarize the progress of major activities during the period of performance, indicate if problems were encountered, and propose remedial actions as appropriate. The quarterly reports also include status updates for the WOs and the amount of in-country and reach back hours that have been utilized to date by WO and in total.

The Tetra Tech COP will notify the CO and the COTR of problems, delays, or adverse conditions, which materially impair the team's ability to meet the requirements of the TO.

6.6 Reach Back Hours

USAID will be notified when 25%, 50%, and 75% of the authorized total of reach back hours have been expended. In Year 1, [redacted] man days have been authorized. There are a total of [redacted] man days authorized under the Task Order. In Year 2, we anticipate utilization of [redacted] man days.

6.7 Annual Work Plans

Annual work plans will be prepared that detail the work to be accomplished during the upcoming year. The 2nd year, 3rd year, 4th year and 5th year work plans will be finalized 60 days prior to the end of the preceding year according to the USG reporting schedule. Accordingly, the annual work plans will be submitted by August 2. These annual work plans may be revised, as needed, to reflect changes on the ground and with the concurrence of the COTR.

6.8 Annual Report

An annual report of each fiscal year will be submitted 30 days after the end of the fiscal year on September 30. Thus, annual reports will be submitted on or before October 30 each year. The report will combine the activities of the four quarters and provide an assessment of the progress in achieving the annual objectives set forth in the annual work plans.

6.9 Final Project Report

At the end of the contract, Tetra Tech will prepare a final project report. The final report will be drafted to allow for incremental improvements in the process, both generally within USAID and specifically with respect to this TO. The final report will contain the following information:

- Specific objectives of the program;
- Activities undertaken to achieve program objectives;
- Results achieved by objective, including life-of-program reporting according to the Performance Monitoring Plan;
- Cost of efforts by sector;
- Actions taken to leverage resources and to ensure the continuation and sustainability of program objectives and the effectiveness of these actions;
- Recommendations regarding unfinished work and/or program continuation; and
- Lessons learned over the course of the program and recommendations for other related programs.

6.10 Other

The Tetra Tech team prepares periodic success stories and other outreach materials that can be utilized by Tetra Tech and USAID as appropriate. Tetra Tech staff may shadow the OIEE local staff as determined appropriate.

Appendix A

Kabul Polytechnic MOU

[redacted]

To: [redacted]
Chief of Party
Tetra Tech, Inc.
USAID Office of Infrastructure, Engineering & Energy (OIEE)
Afghanistan Engineering Support Program (AESP)
Kabul, Afghanistan

[redacted]

We, The Kabul Polytechnic University, are pleased to provide this Memorandum of Understanding to Tetra Tech, Inc. We understand that Tetra Tech, Inc. provides engineering consulting and planning services to the Office of Infrastructure Engineering and Energy (OIEE) for the U.S. Agency for International Development (USAID) in Afghanistan.

Through the OIEE programs of the USAID, Tetra Tech, Inc. may be able to provide Internship and practical opportunities for the students and graduates of the university under the guidance of the KPU faculties as well as the potential for using members of the Faculty and students on specialty projects through the University. This opportunity to engage with Polytechnic University would ensure that local construction methods and cultural issues are properly addressed.

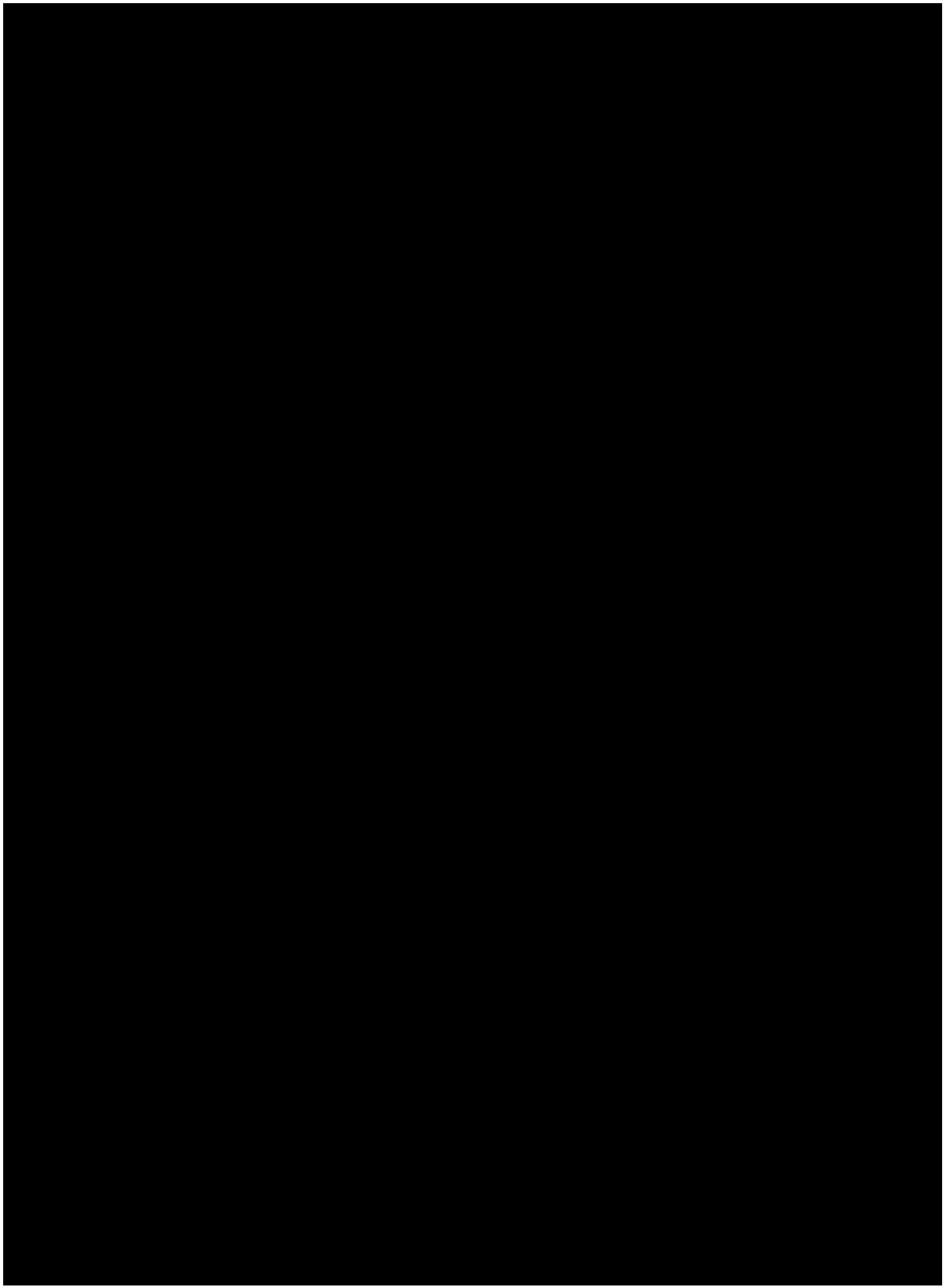
Tetra Tech, Inc. may also want to use the Polytechnic University laboratories for testing of materials used in projects in Afghanistan. Tetra Tech, Inc. will compensate the Polytechnic University for the use of their laboratories based on the nature of the testing work, the amount of the work, and in accordance to the rules and regulations of KPU and the Ministry of Higher Education.

Both Tetra Tech, Inc. and the Polytechnic University believe that this will be an excellent model for enhancing and extending engineering capacity in Afghanistan and look forward to a productive partnership.

[redacted]

Sincerely Yours,

[redacted]



Kabul University MOU

[redacted]

تاریخ 1388 ..... نمبر:

[redacted]
Senior Project Manager/Construction Manager
Tetra Tech, Inc.
1 Grant Street
Framingham, MA USA 01701
[redacted]

We, The Kabul University Faculty of Engineering through the Engineering Institute which operates under the KU/KSU Engineering Partnership, are pleased to provide this letter of commitment to Tetra Tech, Inc. for participation on their proposal being submitted in response to an RFP from U.S. Agency for International Development (USAID) to setup an office in Kabul to provide engineering consulting and planning services to the Office of Infrastructure, Engineering and Energy (OIEE), the engineering branch of USAID. The Engineering Institute understands that Tetra Tech is pursuing this opportunity, and would like to have the members of the Institute who are members of the Kabul University Faculty of Engineering partner with Tetra Tech in providing to USAID the technical services they require.

This would be a non-exclusive partnership to provide internship and co-operative agreement opportunities for the students and graduates of the University, as well as the potential for using members of the Faculty and students on specialty projects through the Institute.

This opportunity to partner with the Kabul University Faculty of Engineering would ensure that local construction methods and cultural issues are properly addressed.

The Engineering Institute gives Tetra Tech, Inc. permission to state in their proposal that the Faculty of Engineering through the Engineering Institute is an integral and supporting member their team. Both Tetra Tech and the Engineering Institute believe that this will be an excellent model for enhancing and extending engineering capacity in Afghanistan and look forward to a productive partnership for both partners.

Sincerely Yours

[redacted]

Sample Work Order Tracking Sheet

ACTIVE AND PENDING WORK ORDER STATUS

Afghanistan Engineering Support Program
IQC: Task Order 01 - EDH-I-00-08-00027-00
USAID Technical Office: USAID/Office of Infrastructure, Engineering, and Energy (OIEE)
Revised August 17, 2010 (Reporting Thru August 8, 2010)

Work Order Number	Program Type[3]	Tetra Tech Lead	Description	Assigned By	Technical POC	Status[4]	Work Order Issue Date	Work Order NTP Date	Modification Date	Scheduled End Date	Completed Date	Estimated Cost (ROM)	In Country Cost to Date[5]	Reach Back Cost to Date[5]	Total Cost to Date[5]	Total Hours	Funding Source	Other Notes and Outstanding Items
WO-A: Administrative Work Orders[1]																		
WO-A-0024	CA	[redacted]	Afghan First COP Meetings	[redacted]		Open	4/6/2010	8/17/2010		11/30/2010		[redacted]	[redacted]	[redacted]	[redacted]		OIEE	
WO-A-0038	E		Execution Plan for RC-East and Nangarhar Elec Power Distribution Program			Open	5/12/2010	5/12/2010		6/30/2010							OIEE	Met [redacted] 7/5/10. On hold until further notice.
WO-A-0039	WR		Kajaki Dam Cost Review			Open	5/8/2010	5/18/2010		9/30/2010							OIEE	Cost Review Draft to be submitted 8/21 and Final 8/29
WO-A-0043	WR		Shahtoot and Sarobi II Dam Review			Open	6/15/2010	6/16/2010		8/31/2010							OIEE	Work Ongoing.
WO-A-0045	T		Chagcharan Airport Site Visit			Open	6/19/2010	6/21/2010	8/7/2010	12/30/2010							OIEE	TT following up with [redacted] on Schedule.
WO-A-0046	E		Jalalabad Elec Power Distribution			Open	7/10/2010	7/13/2010		9/15/2010							OIEE	Meeting with [redacted] to be scheduled.
WO-A-0047	T		Technical Review Maimana & Faizabad Airport			Open	7/15/2010	7/21/2010	8/7/2010	12/30/2010							OIEE	Miamana site visit 8/10/10 and TT preparing trip report. Faizabad visit to be scheduled ASAP.
WO-A-0049	WR		Badakshan Bridge Independent Review			Open	7/15/2010	8/1/2010		8/31/2010								Ongoing
WO-A-0050	TS		USAID DVD/CD Filing			Open	8/1/2010	8/6/2010		10/5/2010							OIEE	TT waiting for response to schedule kick-off meeting.
WO-A-0051	E		MOT Electrical Phase II Drawing Review			Open	8/2/2010	8/17/2010		9/11/2010								
WO-A-0052	E		NEPS-SEPS Connection Review			Open	8/2/2010	8/15/2010		8/30/2010								
WO-A-0053	E		ACEP Report Review			Open	8/15/2010	8/18/2010		9/11/2010								
WO-A-0054	E		NLCC 30% Electrical Design Review			Open	8/15/2010	8/18/2010		8/21/2010								
WO-LT: Long Term Work Ord																		
WO-LT-0001	VS		Regional and Provincial Training Centers Concept and Final Design			Open	12/14/2009	1/5/2010	6/8/2010	9/10/2010							DG	PTC 99% submitted 8/15/10, BOQ to follow. TT to schedule a meeting with Kevin Hackney to discuss schedule and design changes.
WO-LT-0002	VS, E, & W/S		AUAF Concept Design			Open	12/14/2009	2/18/2010	3/27/2010	8/30/2010							OSSD	Work Order to be Closed
WO-LT-0004	W/S, E		MoPH Design Management: Extension of Staff Services & Design Reviews			Open	2/8/2010	3/17/2010	8/10/2010	11/30/2010							OIEE	
WO-LT-0005	W/S, E		GBHS Utility Construction Documents			Open	2/15/2010	3/17/2010	8/7/2010	6/15/2010							OIEE	TT preparing response to drawings review comments. TT to waiting response from J. Belli on whether to include the Admin Building in AMD 5.
WO-LT-0006	W/S, E		SGHS Utility Construction Documents			Open	2/15/2010	3/17/2010	8/7/2010	5/15/2010							OIEE	Final design on going. 100% Design to be submitted 8/19/10 with BOQ to follow.
WO-LT-0007	T		QA Oversight SPR - Southern & Eastern Afghanistan			Open	2/23/2010	6/7/2010		6/7/2011							SPR	Mtg with USAID revised Staff to 17 and Schedule end date to 21/31/11. TT preparing AMD 1 to reflect.
WO-LT-0008	T		LAMPs for Maimana & Faizabad Airport			Open	3/1/2010	5/5/2010		10/31/2010							EG	Reports in progress.
WO-LT-0009	T		PRT Field Support			Open	3/22/2010	8/6/2010		3/6/2011							OIEE	
WO-LT-0012	E		PK to Chimtala Transmission Line			Open	4/13/2010	6/10/2010		9/4/2010								Revised direction from USAID for TT to make assumptions in order to move forward.
WO-LT-0013	VS		Three Towers Project			Open	5/10/2010	6/3/2010	8/15/2010	11/30/2010								Prototype design delivered 8/15/10. AMD 2 submitted 8/12/10. Trip to Kilo scheduled 8/16-8/18
WO-LT-0015	VS, E, & W/S		Kabul University Men's Dormitory Construction Inspection and DFAC 65% and 100% Design Review			Open	6/1/2010	7/25/2010	8/7/2010	12/31/2010								AMD 2 in process for Men's Dorm MEP. TT progressing with geotech investivation. USAID to deliver 65% drawings to TT for review.
Pending Work Orders																		
WO-A-0035	VS		Vertical Structures Best Practices Document Outline			Pending	4/29/2010										OIEE	On hold until further notice from USAID.
WO-LT-0014	VS		VTC Green Design			Pending	5/17/2010											TT submitted SOW 5/28/10 and in process of preparing ROM for discussion with USAID. 5/31/10 email from Tamuna stating to hold until further notice
WO-LT-0016	E		Kandahar 10 MW Solar			Pending	7/6/2010											On hold until further notice from USAID.

Notes [#]:
(1) Work Orders with anticipated level of effort of 18-mandays or less
(2) Work Orders that are planned to equal more than 18-mandays
(3) Program Type: Professional Activity (PA), Contracts Assistance (CA), Energy (E), Transportation (T), Vertical Structures (VS), Water/Sanitation (W/S) or Water Resources (W/R)
(4) Status: Pending Approval, Open, or Complete
(5) Labor, expenses, OH, GA, and fee. Does not include Power Engineering costs.

RED-AWAITING TT RESPONSE
BLUE-AWAITING USAID RESPONSE

COMPLETED WORK ORDERS

Afghanistan Engineering Support Program
IQC: Task Order 01 - EDH-I-00-08-00027-00
USAID Technical Office: USAID/Office of Infrastructure, Engineering, and Energy (OIEE)
Revised August 15, 2010 (Reporting Thru August 8, 2010)

Work Order Number	Program Type[3]	Tetra Tech Lead	Description	Assigned By	Technical POC	Status[4]	Work Order Issue Date	Work Order NTP Date	Modification Date	Scheduled End Date	Completed Date	Estimated Cost (ROM)	In Country Cost to Date[6]	Reach Back Cost to Date[6]	Total Cost to Date[6]	Total Hours	Funding Source	Completion Letter Sent Date	Completion Letter Return Date
WO-A: Completed Administrative Work Orders [1]																			
WO-A-0001	W/S		Review Kabul Water Study			omplete	12/21/2009	12/28/2009		1/15/2010	1/17/2010	NA					OIEE	4/11/2010	4/20/2010
WO-A-0001A	W/S		Review of Kabul Water MTP-1 Bid Docs			omplete	2/1/2010	2/2/2010	2/21/2010	3/15/2010	3/16/2010	NA					OIEE	6/24/2010	
WO-A-0002	VS, E, & W/S		Review of AUAF Master Plan Infrastructure			omplete	12/10/2009	12/28/2009		1/4/2010	1/6/2010	NA						4/11/2010	4/20/2010
WO-A-0002A	VS, E, & W/S		AUAF Master Plan Rev & SOW/ROM			omplete	1/25/2010	1/25/2010		2/6/2010	2/6/2010	NA						4/11/2010	4/20/2010
WO-A-0003	W/S		GBHS Sanitation			omplete	1/11/2010	1/13/2010		2/28/2010	2/22/2010	NA						4/11/2010	4/20/2010
WO-A-0004	E		GBHS Electrical			omplete	1/12/2010	1/13/2010		2/28/2010	2/15/2010	NA						4/11/2010	4/20/2010
WO-A-0005	W/S		GBHS Water Supply			omplete	1/13/2010	1/13/2010		2/28/2010	2/22/2010	NA						4/11/2010	4/20/2010
WO-A-0006	W/S		Sardar GHS Sanitation			omplete	1/14/2010	1/16/2010		2/28/2010	2/22/2010	NA						4/11/2010	4/20/2010
WO-A-0007	E		Sardar GHS Electrical			omplete	1/14/2010	1/16/2010		2/28/2010	2/15/2010	NA						4/11/2010	4/20/2010
WO-A-0008	W/S		Sardar GHS Water Supply			omplete	1/14/2010	1/16/2010		2/28/2010	2/22/2010	NA						4/11/2010	4/20/2010
WO-A-0009	E		Integration of Nangarhar into NEPS			omplete	1/29/2010	1/30/2010	2/23/2010	3/31/2010	5/11/2010	NA					OIEE	5/12/2010, 6/19/2010	
WO-A-0010	PA		Review of BS-25 Draft Position			omplete	1/29/2010	2/2/2010		2/5/2010		NA						4/11/2010	4/20/2010
WO-A-0011	E		HFO Feasibility for Tarakhil Power Plant			omplete	1/29/2010	2/3/2010	3/6/2010	3/31/2010	4/26/2010	NA					OIEE	4/26/2010, 6/19/2010	
WO-A-0012	PA		Position Advertisements			omplete	2/15/2010	2/15/2010		2/25/2010	3/7/2010	NA						4/11/2010	4/20/2010
WO-A-0013	E		Third Party MEP Review of IOM 20 Bed Hospital			omplete	2/15/2010	2/17/2010	3/3/2010	3/15/2010	3/14/2010	NA						4/11/2010	4/20/2010
WO-A-0014	PA		Construction Equipment Costs			omplete	2/22/2010	2/23/2010		3/4/2010	2/25/2010	NA						4/11/2010	4/20/2010
WO-A-0015	E		MOT Electrical			omplete	3/4/2010	3/4/2010		4/30/2010		NA					OIEE	5/10/2010	5/17/2010
WO-A-0016	VS		AUAF Board of Trustees Support			omplete	3/4/2010	3/6/2010		3/31/2010		NA						4/19/2010	5/17/2010
WO-A-0017	VS		Faculty of Education			omplete	3/15/2010	3/15/2010		3/25/2010		NA						4/19/2010	5/17/2010
WO-A-0018	WR		Dam #1 Review for Pul-e-Khumri			ompleted	3/28/2010	3/28/2010		5/1/2010	5/2/2010	NA					OIEE	5/10/2010, 6/19/2010	
WO-A-0019	WR		Dam #2 Review for Pul-e-Khumri			ompleted	3/28/2010	3/28/2010		5/1/2010	5/2/2010	NA					OIEE	5/10/2010, 6/19/2010	
WO-A-0020	E		SEPS Additional Work			omplete	3/29/2010	4/1/2010		4/30/2010	4/18/2010	NA					OIEE	4/19/2010, 6/19/2010	
WO-A-0021	VS		MoEW VTC Rehab Drawing Review			omplete	4/5/2010	4/6/2010		4/20/2010	4/20/2010	NA					OIEE	5/10/2010, 6/19/2010	
WO-A-0022	VS		50 Bed Wmn Hosp Drawing Review			omplete	4/5/2010	4/6/2010		4/12/2010	4/12/2010	NA					OIEE	4/19/2010, 6/19/2010	
WO-A-0023	CA		Data Collection for Afghan Contractors Capacity Building			omplete	4/6/2010	4/11/2010	6/1/2010	8/7/2010		NA					OIEE		
WO-A-0025	WR		Kajaki Dam			omplete	4/12/2010	4/12/2010		4/30/2010	6/2/2010	NA					OIEE	6/2/2010	6/3/2010
WO-A-0027	E		National Electric Distribution Work Unit Quantity Model			omplete	4/12/2010	4/18/2010	5/8/2010	5/31/2010	7/10/2010	NA					OIEE	8/8/2010	
WO-A-0028	VS		IOM 50 BH Samangan Geotech Review			omplete	4/12/2010	4/18/2010		4/21/2010	4/21/2010	NA					OIEE	5/10/2010	5/17/2010
WO-A-0029	VS		CHEF PTTC Drawing Review			omplete	4/20/2010	4/20/2010		4/28/2010	4/29/2010	NA					OIEE	6/19/2010	
WO-A-0030	VS		ISD-DGA Proposal Review			omplete	4/22/2010	4/22/2010		4/28/2010	4/28/2010	NA					OIEE	4/29/2010	5/17/2010
WO-A-0031	VS		100 BH IQC Comparison ROM			omplete	4/28/2010	4/28/2010		5/7/2010	5/7/2010	NA					OIEE	5/12/2010	5/17/2010
WO-A-0032	WR		Pul-e-Khumri Cost Estimate			omplete	4/29/2010	4/29/2010		5/10/2010	6/2/2010	NA					OIEE	6/2/2010	6/14/2010
WO-A-0033	VS		MoPH Complex Structural Design Review			omplete	4/29/2010	5/12/2010		6/2/2010	6/8/2010	NA					OIEE	6/8/2010	
WO-A-0034	WR		Kajaki Dam SOW			omplete	5/8/2010	5/8/2010	5/18/2010	6/19/2010	7/6/2010	NA					OIEE	8/8/2010	
WO-A-0036	VS		AUAF 3D CDR Presentations			omplete	5/3/2010	5/9/2010		6/3/2010	6/12/2010	NA					OIEE	6/12/2010	
WO-A-0037	T		Doshi to Salang Tunnel Pavement Design Review			omplete	5/11/2010	5/15/2010		5/29/2010	7/11/2010	NA					OIEE	8/8/2010	
WO-A-0040	Tech Support		Power Point Presentation			omplete	5/26/2010	5/27/2010		6/4/2010	6/15/2010	NA					OIEE	6/24/2010	
WO-A-0042	VS		AVIPA Processing Plant Review			omplete	6/2/2010	6/5/2010		6/30/2010		NA					OIEE	8/8/2010	
WO-A-0044	VS, E, & W/S		Kabul University DFAC and Laundry 35% Design Review			omplete	6/15/2010	6/16/2010		6/24/2010	7/25/2010	NA					OIEE	8/8/2010	
WO-A-0048	CA		Action Memo SGFDP			omplete	7/25/2010	7/27/2010		7/31/2010	7/31/2010	NA					OIEE	8/8/2010	

Notes [6]:
(1) Work Orders with anticipated level of effort of 18-mandays or less
(2) Work Orders that are planned to equal more than 18-mandays
(3) Program Type: Professional Activity (PA), Contracts Assistance (CA), Energy (E), Transportation (T), Vertical Structures (VS), Water/Sanitation (W/S) or Water Resources (W/R)
(4) Status: Pending Approval, Open, or Complete
(5) Assigned with [redacted]
(6) Labor, expenses, OH, GA, and fee. Does not include Power Engineering costs.

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